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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,101	12/31/2001	Xiaolin Lu	TI-33448	5862
23494 7590 04/24/2007 TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			EXAMINER WILSON, ROBERT W	
			ART UNIT	PAPER NUMBER
			2616	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/24/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/037,101

Applicant(s)

LU ET AL.

Examiner

Robert W. Wilson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-8,10-13,16,18,19 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,5-7,13,16 and 18 is/are allowed.
- 6) ☒ Claim(s) 8, 10-12, 19, 21-22 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Allowable Subject Matter

2. Claims 1-2, 5-7, 13, 16, & 18 are allowed. The following is an Examiner's statement of reasons for allowance:

Claims 1-2, 5-7, 13, 16, & 18 are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims including:

“the sender further comprising a store for storing expected receive time which is based on the delay; an acknowledgement relationship establisher that establishes a relationship between the time reference and the expected receive time for an outgoing packet; an acknowledgement resolver that determines whether an acknowledgement received corresponds to the outgoing packet utilizing the expected receive time for an outgoing packet ; a retry determiner that determine whether the outgoing packet should be retransmitted based at least on part, on the determination made by the acknowledgement resolver” as claimed in claim 1.

“A memory location for storing an expectation time value representing the time an acknowledgment is expected to be received by the sender based on the delay”, as specified in claim 13.

“selectively retransmitting the packet based , at least in part, on the determination of whether an acknowledgment to the packet is received” as claimed in claim 16.

3. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims, 19 & 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Lundh (U.S. Patent No.: 6,577,872).

Referring to claim 19, Lundh teaches: A method for control packet flow (STU & MTU perform the method of controlling packet flow) comprising:

Transmitting a packet from a sender to a receiver (sending a message (packet) from the MTU (sender) to a receiver (STU) per Figure 10)

Storing an expected time that the packet is expected to be received at the receiver (t2 predicted is expected time that the packet is to be received by the STU (receiver) is calculated and inherently stored)

Extracting an acknowledgement time from an acknowledgement from the receiver (The SFN adjust extracts t2 (acknowledgement time) from a response message (acknowledgment from the STU (receiver) per Fig 10 and per col. 14 lines 1-10)

Determining whether an acknowledgment contains a time value corresponding to the expected receive time such that the acknowledgement corresponds to the packet (The SFN adjust extracts the value of t2 which corresponds to the expected receive and acknowledgment time of the message of packet per Fig 10 and per col. 14 lines 1-10))

Establishing synchronization between a time of the sender and a timer of the receiver prior to transmitting the packet (synchronization is inherent between the sender and the receiver in order in order that the value of t2, t3, & t4 are meaningful)

Regarding claim 21, the establishing synchronization comprising transmitting a base time and a ranging offset to the receiver and adjusting the timer of the receiver to the time of the sender utilizing the base time and the ranging offset (A t1 (base time) is transmitted per Fig 10 and a SFN adjust (ranging offset) is sent to the STU (receiver) thus utilizing both the base time and ranging offset per col. 14 lines 1-43)

Regarding claim 22, the acknowledgment time is the time when the receiver generates the acknowledgment (t2 is the time when the STU (receiver) generates receiving the message (acknowledgement) per Fig 10)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8, 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lundh (U.S. Patent No.: 6,577,872) in view of Chien (U.S. Patent No.: 5,815,667)

Referring to claim 8, Lundh teaches: a system for transmitting packets (MTU per Fig 1) comprising:

a timer (oscillator per Fig 1) that produces a timing reference (t1 per col. 12 lines 45-51);

a packet building component builds a packet (MTU builds a message (packet) per col. 12 lines 45-51) and transmits the packet to the receiver (MTU sends a message (packet) to the STU (receiver) per col. 12 lines 45-51). The system calculates the receive time relative to the timing reference (The MTU (system) calculates t2 predicted using t1 per col. 14 lines 1-7 and inherently stores the value of t2 predicted which is the time that the MTU expects the message (packet) to be received by the STU)

An acknowledgement resolving component that extracts an acknowledgment time corresponds to the receive time of the packet (The SFN adjust (acknowledgment resolving component) extracts t2 from the message and takes the difference between the t2predicted and t2 or determines if the acknowledgment time corresponds to the received message (packet)) per col. 14 lines 1-8)

Lundh does not expressly call for: a retry determining component that determine whether the packet should be retransmitted based at least in part on the determination made by the acknowledgement resolving unit

Chien teaches: a retry determining component that determine whether the packet should be retransmitted based at least in part on the determination made by the acknowledgement resolving unit (A determination is made to see if a packet has been received and if the answer is no and if retransmission timer exceeds a timeout threshold or delay exceeds timeout threshold then the data is retransmitted per col. 9 lines 1 to 67)

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It would have been obvious to one of ordinary skill in the art at the time of the invention to add the retry determiner or Chien to the system of Lundh in order to build a system which improves the overall of efficiency of retransmission processing.

In addition Lundh teaches:

Regarding claim 10, further comprising a time signal generator that sends the timing reference to the receiver to establish time synchronization between the timer and a timer in the receiver (The SFN adjust (time signal generator) sends the SFN offset message to the STU (receiver) in order to synchronize the oscillator in the STU with the oscillator in the MTU (timer) per col. 7 lines 47-col. 9 line 24)

Regarding claim 11, further comprising a ranging offset determiner that computes a delay associated with transmitting between the system and the receiver, the delay being utilized to establish time synchronization between the system and the receiver (The SFN adjust (ranging offset determiner) calculates the $t_2 - t_1$ predicted (delay) associated with the message transmitted between the MTU (system) and STU (receiver) and this difference is sent in a message to the STU from the MTU in order to synchronize the STU oscillator per col. 14 lines 1-43).

Referring to claim 12, the combination of Lundh and Chien teach: the packet transmission system of a wireless access termination system (Base station) and wireless mobile per Fig TBD and compensating for delay.

The combination of Lundh and Chien do not expressly call for: wireless access modem in the base station and wireless modem in the mobile.

Ohki teaches: wireless access modem in the base station and wireless modem in the mobile per coll. 5 lines 40 to 56.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the wireless modem in the base station and wireless modem in the mobile of Ohki to the system of the combination of Lundh and Chien in order to build a system which sends MAC data between the base station and the mobile station.

Response to Amendment

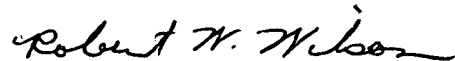
8. Applicant's arguments with respect to claims 1-2, 5-8, 10-13, 16, 18-19, & 21-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. VU can be reached on 571/272-73155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Robert W Wilson
Examiner
Art Unit 2616

RWW
4/16/07